



# NEPA, Endangered Species, and Climate Intervention

Prof. Tracy Hester

University of Houston Law Center

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#### NEPA and Climate Change



- Earliest of federal environmental statutes (1970) broad
- Applies when "major federal action" "significantly affects" "quality of human environment"
  - Federal, not state (although beware state mini-NEPAs)
  - "significantly affect" includes
    - Controversial; precedent-setting; unique; cumulative impacts
    - Requires context + intensity
      - Intensity: highly controversial, cumulative, others
  - Both direct and indirect effects, cumulative as well
- CEQ Guidance on GHG Effects: social cost of carbon; withdrawn
- Sierra Club v. FERC (D.C. Cir. 2017) Natural Gas Act section 7 CCN; APA challenge; "indirect actions"; FERC's power to reject

#### **Endangered Species Act – a Roadmap**

- Protects "endangered" and "threatened" species
  - "In danger of extinction" or "likely to become endangered" through all, or a significant portion, of its range
  - Must be listed (section 4) using "best scientific and commercial data available", including critical habitat
  - Candidate Conservation Agreemts







#### Endangered Species Act – a Roadmap

- Section 7
  - Federal consultation requirement
  - No jeopardy determination
  - Requires either biological assessment or biological opinion
    - From U.S. Fish & Wildlife Service or National Marine Fisheries Services
    - Incidental Take Permit (or God Squad)
- Section 9
  - No "taking" of endangered species (special listing rules)
  - Plants too if protected by state law
  - Habitat Conservation Plans
- Citizen suits and listing petitions

## Species That Cannot Survive without Climate Intervention?



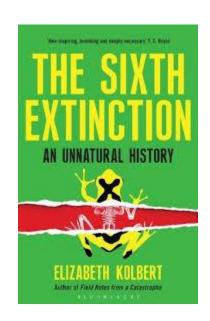






### Climate Change and ESA

- Key questions:
  - When to <u>list</u> a species that faces long-range threat from climate change? These species will also drive reviews of climate intervention proposals
  - When to require <u>consultation</u> for federal actions that affect climate?
  - When does an action affecting climate result in a <u>taking</u>? When is it required to prevent a taking?





#### **Test cases**

- Polar bear litigation
- Staghorn coral
- Bearded seals





#### Recent regulatory initiatives on ESA

- DOI finalized rules on August 27, 2019 to clarify the operation and scope of listing decisions and consultation requirements
- Key climate change concern: proposal that agencies need not consult on "global processes" postponed
- Also changes to special 4d rules for threatened species
- Litigation firestorm has already begun – <u>Center for Biological</u> <u>Diversity v. Bernhardt (N.D. Cal.</u> 2019)

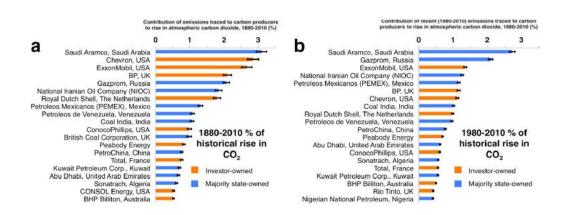




#### **Application to Climate Intervention Projects**



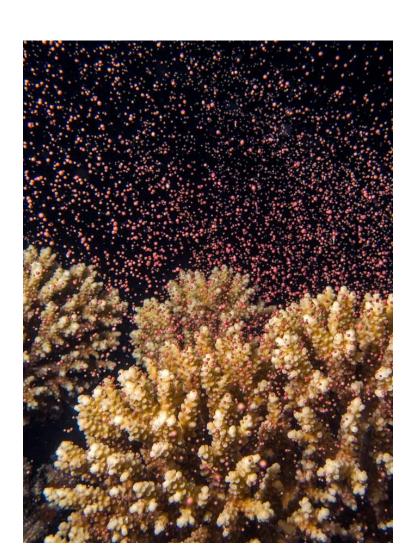
- NEPA EIS for federal agency permits (standing?)
- Section 7 consultation on federal actions that involve climate intervention projects
- Section 9 liability for harm to protected species
- Mandate for action if intervention required for species survival?
- Attributing intervention effects to federal action and species impacts

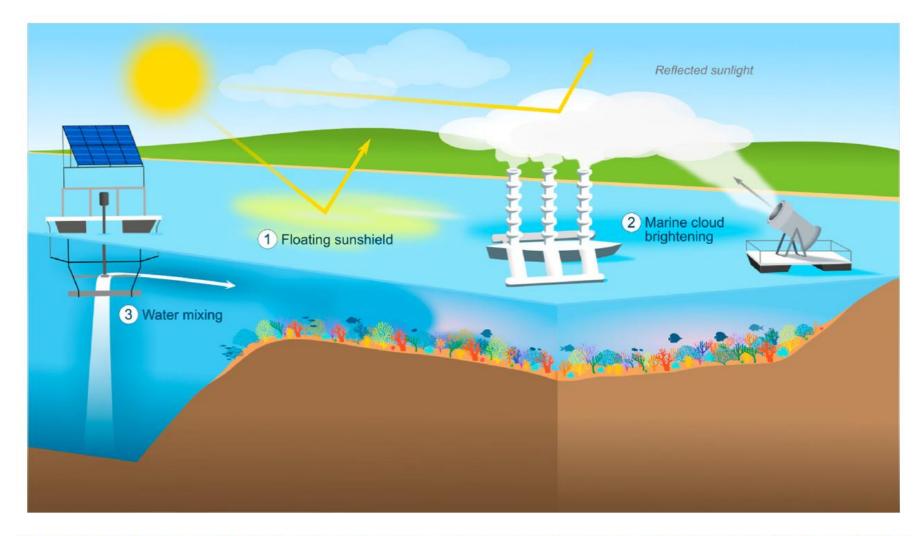


### Staghorn coral and intervention to protect reefs

- Staghorn coral listed as critically endangered species
- Recent proposals to study local climate intervention to protect reefs (Great Barrier Reef)
- ESA and NEPA implications if used in Florida or other state?







**Figure 1.** Funding has been awarded for feasibility studies of three geoengineering technologies to protect the reef: (1) a 'floating sunshield' of reflective surface film made of calcium carbonate to reflect sunlight and lower water temperatures; (2) marine cloud brightening; and (3) water mixing.





Professor Tracy Hester University of Houston Law Center

tdheste2@central.uh.edu 713-743-1152 (office)